

THAT WHICH IS CLAIMED:

1. An exercise machine, comprising:
  - a bench having a length and width mounted on a frame for a user to lie on their back;
  - a pair of independently adjustable arm exercise mechanisms mounted on a first end of said frame, each of said arm mechanisms including a rotatable arm to be rotated around an axis of rotation by the user's arms, each said rotatable arm including a shaft portion that is separate and distinct from the shaft portion of said other rotatable arm, each said shaft portion defining said axis of rotation of said rotatable arm; and
  - an adjustable leg exercise mechanism mounted on a second end of said frame, said leg mechanism including a pair of rotatable pedals to be rotated by the user's feet so that the user's feet and pedals move in a circular motion around an axis of rotation transverse to a direction along the bench's length, each said rotatable pedal connected to a rotatable member connected to a shaft mechanism, said shaft mechanism defining said axis of rotation of said pedals.
2. The exercise machine of claim 1, including a headrest mounted to said bench at said first end of said frame by at least one spring mechanism, said spring mechanism running in a direction along the length of said bench and positioned between said first end of said bench and said headrest to allow a range of motion for the user's head and neck.
3. The exercise machine of claim 1, including each said arm mechanism being laterally adjustable from said frame width to accommodate the width of the user's arms and shoulders.
4. The exercise machine of claim 3, including each said arm mechanism being vertically adjustable from said frame such that said axis of rotation is capable of being moved in a vertical direction from said frame to adjust the circle of rotation of said arm mechanism.

5.. The exercise machine of claim 1, including at least one of said arm mechanisms rotatable about an adjustable tension device.

6. The exercise machine of claim 1, including a bar attachable to said arm mechanisms to fix their relationship to cause such arm mechanisms to rotate together, and detachable to permit the arm mechanisms to rotate independently of one another.

7. The exercise machine of claim 1, including said arm mechanism pivotable vertically to rotate said axis of rotation.

8. The exercise machine of claim 1, including said leg mechanism being vertically adjustable from said frame such that said axis of rotation is capable of being moved in a vertical direction from said frame to adjust the circle of rotation of said pedals.

9. The exercise machine of claim 8, including said leg mechanism including said pedals being adjustable so as to adjust a radius of said circle of rotation of said pedals.

10. An exercise machine, comprising:  
a bench having a length and width mounted on a frame for a user to lie on their back;

a pair of adjustable arm exercise mechanisms mounted on a first end of said frame, each of said arm mechanisms including a rotatable arm to be rotated around an axis of rotation by the user's arms, each said arm mechanism being vertically adjustable from said frame such that said axis of rotation is capable of being moved in a vertical direction from said frame to adjust the circle of rotation of said arm mechanism; and

at least one adjustable leg exercise mechanism mounted on a second end of said frame, said leg mechanism including a pair of rotatable pedals to be rotated by the user's feet so that the user's feet and pedals move in a circular motion around an axis of

rotation transverse to a direction along the bench's length, said leg mechanism vertically adjustable from said frame such that said axis of rotation is capable of being moved in a vertical direction from said frame to adjust the circle of rotation of said pedals.

11. The exercise machine of claim 10, including a headrest mounted to said bench at said first end of said frame by at least one spring mechanism, said spring mechanism running in a direction along the length of said bench and positioned between said first end of said bench and said headrest to allow a range of motion for the user's head and neck.

12. The exercise machine of claim 10, including each said arm mechanism being laterally adjustable from said frame width to accommodate the width of the user's arms and shoulders.

13. The exercise machine of claim 10, including a bar attachable to said arm mechanisms to fix their relationship to cause such arm mechanisms to rotate together, and detachable to permit the arm mechanisms to rotate independently of one another.

14. The exercise machine of claim 10, including said arm mechanism pivotable vertically to rotate said axis of rotation.

15. An exercise machine, comprising:  
a bench having a length and width mounted on a frame for a user to lie on their back;  
a pair of adjustable arm exercise mechanisms mounted on a first end of said frame, each of said arm mechanisms including a rotatable arm to be rotated around an axis of rotation by the user's arms;  
at least one adjustable leg exercise mechanism mounted on a second end of said frame, said leg mechanism including a pair of rotatable pedals to be rotated by the user's feet so that the user's feet and pedals move in a circular motion around an axis of rotation transverse to a direction along the bench's length; and

a headrest mounted to said bench at said first end of said frame by at least one spring mechanism, said spring mechanism running in a direction along the length of said bench and positioned between said first end of said bench and said headrest to allow a range of motion for the user's head and neck.

16. The exercise machine of claim 15, wherein the spring mechanism extends at least part of the way across a space between the headrest and the frame.

17. An exercise machine, comprising:

a bench having a length and width mounted on a frame for a user to lie on their back, said bench and frame being formed in two sections adjustable longitudinally; and

a shock absorbing crosspiece mounted to the frame between said two sections and defining a fulcrum to allow said sections to be tilted relative to one another, and a shock absorber-like device mounted to the frame to provide spring support for the crosspiece at its fulcrum, the tilting of the sections by pivoting of the crosspiece as the shock absorber device moves allowing the user to bend abdominally.

18. The exercise machine of claim 17, wherein the shock absorber-like device includes a spring.

19. The exercise machine of claim 17, wherein the shock absorber-like device includes a shock absorber.